

Amdt. dated October 24, 2005
Reply to Office action of Jun. 16, 2005

Serial No. 09/972,010
Docket No. SJO920010093US1
Firm No. 0037.0101

REMARKS/ARGUMENTS

The Examiner rejected claims 1-20 as anticipated (35 U.S.C. §102(b)) by Linde (U.S. Patent No. 6,660,665). Applicants traverse.

Amended claim 1 recites a storage area network (SAN) including a first and second digital data processors executing a first and second operating systems, respectively, in communication with one or more storage devices, comprising: a first platform-specific process executing on the first digital data processor; a second platform-specific process executing on the second digital data processor, wherein the second operating system is different from the first operating system; a first common platform-independent process executing on the first digital data processor, wherein the first common platform-independent process invokes and communicates with a first command line interface of the first operating system to effect execution of the first platform-specific process via command line parameters; and a second common platform-independent process executing on the second digital data processor, wherein the second common platform-independent process invokes and communicates with a first command line interface of the first operating system to effect execution of the second platform-specific process via command line parameters.

Applicants amended claim 1 to recite that the first and common platform-independent processes process invoke and communicate with command line interfaces of the first and second operating systems to effect execution of the first and second platform-specific process via command line parameters. The additional requirements of these claims are disclosed on at least pgs. 42-43 and 191-193 of the Application.

With respect to the pre-amended claim 1, the Examiner cited col. 4, lines 35-44 of Linde as teaching the claim requirements. (Final Office Action, pgs. 2-3) The cited col. 4 mentions a SAN having clients connected to server storage devices via a server. The server uses a front end driver to present disk images to the client system. A request for data will be translated by the server to the correct command sequence for a native device driver, which communicates with a storage device to obtain the data.

Thus, the cited Linde discusses a technique for a server to access data using a native device driver to present the data to client systems 1. Nowhere does the cited col. 4 disclose the claim requirements of common platform independent processes invoking and communication with first and second command line interfaces of the first and second operating systems to effect

Amdt. dated October 24, 2005
Reply to Office action of Jun. 16, 2005

Serial No. 09/972,010
Docket No. SJO920010093US1
Firm No. 0037.0101

execution of first and second platform specific processes via command line parameters. Instead, the cited col. 4 discusses how a server translates a request for data to a command sequence for a native NT device driver. There is no disclosure in this cited col. 4 of platform independent processes effecting execution of first and second platform specific processes via command line interfaces. Instead, the cited col. 4 concerns a server controlling a single device driver to request data.

Applicants submit that a "command line interface" is a term known in the art that is a method of interacting with a computer by giving the computer lines of textual command from a keyboard or a program. Nowhere does the cited col. 4 disclose this technique for the first and second platform independent processes to effect execution of the first and second platform specific processes, respectively.

The Examiner cited col. 4, lines 45-50 as disclosing the use of different operating systems. (Final Office Action, pg. 3) The cited col. 4 mentions that the server can communicate with device drivers for operating systems other than NT.

Although the cited Linde discusses how a server may present disk images to clients, nowhere does the cited Linde disclose the specific combination of claim requirements of first and second platform-specific processes executing on first and second operating systems, respectively, such that the platform-independent processes on the first and second processors invoke and communicate with first and second command line interfaces of the first and second operating systems to effect execution of the platform specific processes via command line parameters.

The cited Linde discusses how a server front end driver interface translates a request for data to a correct command sequence for a native NT device driver that communicates with the server storage device. Nowhere does this cited aspect of Linde disclose two platform independent processes invoking first and second command line interfaces to effect execution of first and second platform specific processes via command line parameters. The cited Linde discusses how one server front end driver may interact with the NT device driver. However, nowhere does Linde disclose multiple platform independent processes invoking command line interfaces to effecting platform specific processes. Instead, the cited Linde discusses one server process (the front end driver) effecting execution of an NT driver to access server disks.

The Examiner further cited col. 4, lines 8-17 of Linde. (Final Office Action, pgs. 3-4) This cited col. 4, lines 8-17 mentions that the volume insight architecture presents a standard

Amdt. dated October 24, 2005
Reply to Office action of Jun. 16, 2005

Serial No. 09/972,010
Docket No. SJO920010093US1
Firm No. 0037.0101

disk driver interface to the server system to service basic commands. These basic commands are translated by the server into commands of an underlying driver to control the I/O device. The overhead of the local translation does not effect operations of the client machine.

The cited col. 4 concerns the server translating basic commands from clients into commands of an underlying driver. Nowhere does this cited col. 4 anywhere disclose or mention two platform independent processes invoking command line interfaces, as that term is understood in the art, to effect execution of first and second platform specific processes via command line parameters.

In the Response to Arguments, the Examiner found that "[i]t is inherent that computing devices maintain command line functionality. It is further inherent that within network computing devices, processes and requests are transferred/communicated between devices through command lines." (Final Office Action, pg. 16). Although command line functionality may be available in operating systems, nowhere does the cited art disclose the particular claimed use of command line functionality to allow platform independent processes executing on different machines having different operating systems to effect execution of platform specific processes on the different machines. There is no mention in the cited Linde of the claim requirement of platform independent processes using command line interfaces to effect execution of first and second platform-specific processes.

Accordingly, claim 1 is patentable over the cited Linde because the cited Linde does not disclose all the claim requirements.

Claims 3-14 are patentable over the cited art because they depend from claim 1, which is patentable over the cited art for the reasons discussed above. Applicants amended claims 4-11 and 14 to clarify that certain elements are first and second instances of the elements. Moreover, the following dependent claims provide further grounds of distinction over the cited art.

Claim 4 depends from claim 1 and further requires a manager in communication with the first and second common platform-independent process to transmit requests thereto for information regarding one or more components of the SAN.

The Examiner cited the server of Linde as equivalent to the claimed manager. (Final Office Action, pgs. 4-5) Applicants traverse.

The cited server of Linde communicates with a native device driver to access a storage device. (col. 4, lines 35-45) Nowhere does the cited Linde disclose that the server

Amdt. dated October 24, 2005
Reply to Office action of Jun. 16, 2005

Serial No. 09/972,010
Docket No. SJO920010093US1
Firm No. 0037.0101

communicates with first and second common platform independent processes to transmit requests to these processes for information regarding components of the SAN. Instead, the cited server of Linde may receive data requests from the client, but Linde does not disclose the server transmitting requests to first and second common platform independent processes on different processors for information on the SAN as claimed.

If the Examiner maintains this rejection, Applicants request that the Examiner show where Linde discloses that the server communicate with first and second common platform independent processes that effect execution of first and second platform specific processes via first and second command line interfaces as claimed.

Accordingly, amended claim 4 provides additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited art.

Amended claim 6 depends from claim 5 and further requires that the invoked first and second platform specific processes gather information regarding one or more SAN components and transmit the information to the Standard Output/Error of their respective first and second digital data processors.

The Examiner found that anytime data is viewed, such as retrieved through a SAN, it must be transferred through standard output/error and that Linde discusses different I/O device types. (Final Office Action, pg. 5) Nowhere does the cited Linde anywhere disclose separate first and second platform specific processes executing on different processors having different operating systems gathering information on SAN components and transmit the gathered information to the standard output/error. Instead, the cited Linde discusses how a server accesses storage devices.

The Examiner further cited col. 4, lines 8-17 of Linde against claim 6. (Final Office Action, pg. 5) This cited col. 4, lines 8-17 mentions that the volume insight architecture presents a standard disk driver interface to the server system to service basic commands. These basic commands are translated by the server into commands of an underlying driver to control the I/O device. The overhead of the local translation has not effect on operations of the client machine.

The cited col. 4 concerns the server translating basic commands from clients into commands of an underlying driver. Nowhere does this cited col. 4 anywhere disclose or mention

Amdt. dated October 24, 2005
Reply to Office action of Jun. 16, 2005

Serial No. 09/972,010
Docket No. SJO920010093US1
Firm No. 0037.0101

that the invoked first and second platform specific processes gather information regarding SAN components and transmit the information to their respective digital processor.

Accordingly, amended claim 6 provides additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited art.

Amended claim 9 recites that the manager comprises a query engine for transmitting the requests to the first and second common platform independent processes.

The Examiner cited the server of Linde as disclosing the claimed manager comprising a query engine. (Final Office Action, pg. 6) Applicants traverse.

The cited Linde discusses how a server communicates with a device driver to access a device and that the server translates client commands to a command sequence for a native device driver to access data. Nowhere does the cited Linde disclose that the server has a query engine for transmitting requests to first and second common platform independent processes on different processors having different operating systems as claimed. Instead, the cited Linde discusses how the server translates client data requests to the command sequence for the NT device driver.

If the Examiner maintains this rejection, Applicants request that the Examiner show where Linde discloses that the server has a query engine that transmits requests to the first and second common platform independent processes that in turn effect execution of platform specific processes via command line parameters.

Accordingly, amended claim 9 provides additional grounds of patentability over the cited art because the additional requirements of these claims are not disclosed in the cited art.

Claims 10-14 provide additional grounds of patentability over the cited art because they provide further details on the manager query engine.

Amended claim 15 was amended to substantially include the requirements of amended claim 1 and claim 4 and, thus, is patentable over the cited Linde for the reasons discussed with respect to amended claim 1.

Amended claims 16-20 are patentable over the cited art because they depend from claim 15, which is patentable over the cited art for the reasons discussed above. Further, amended claims 16-19 include similar limitations to claims 6, 7, 9, and 10, and thus provide additional grounds of patentability over the cited art for the reasons discussed with respect to claims 6, 7, 9, and 10. Applicants amended claims 16-20 to clarify that certain elements are first and second instances of the elements.

Amdt. dated October 24, 2005
Reply to Office action of Jun. 16, 2005

Serial No. 09/972,010
Docket No. SJO920010093US1
Firm No. 0037.0101

Independent claim 21 is amended to substantially include the requirements of amended claim 1. Applicants submit that amended claim 21 is patentable over the cited art for the reasons discussed with respect to amended claim 1. Amended claims 23-26 substantially include the requirements of claims 4, 5, 6, and 9 in computer readable media form and thus are patentable over the cited art for the reasons discussed above with respect to claims 4, 5, 6, and 9. Applicants amended claims 23-26 to clarify that certain elements are first and second instances of the elements.

Conclusion

For all the above reasons, Applicant submits that the pending claims 1, 3-21, and 23-26 are patentable over the art of record. Applicants submit herewith the fee for the RCE and one-month extension of time. Nonetheless, should any additional fees be required, including any additional extension of time fees, please charge Deposit Account No. 09-0466.

The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

Dated: October 24, 2005

By: 

David W. Victor
Registration No. 39,867

Please direct all correspondences to:

David Victor
Konrad Raynes & Victor, LLP
315 South Beverly Drive, Ste. 210
Beverly Hills, CA 90212
Tel: 310-553-7977
Fax: 310-556-7984